

**What is claimed:**

1. A water treatment apparatus comprising:  
a tank having a raw water inlet and a treated water outlet;  
a separating wall which divides said tank into upper and lower parts forming an upper chamber and a lower chamber where the upper chamber and the lower chamber both contain water and where the separating wall can move up and down to control the water level of said upper chamber and lower chamber.
2. A water treatment apparatus according to Claim 1, wherein the separating wall is formed from a rectangular or circular separating wall panel and a flexible sheet.
3. A water treatment apparatus according to Claim 2, further comprising a stirring device is suspended from the upper part of the tank in the upper chamber.
4. A water treatment apparatus according to Claim 3, further comprising a floatation adjustment bag fitted to the lower part of the separating wall to thereby control the vertical movement of said separating wall.
5. A water treatment apparatus comprising a plurality of the water treatment apparatus according to Claim 4 used together.
6. A water treatment apparatus according to Claim 5 where the lower chambers of each of the water treatment tanks are linked such that water can flow between the lower chambers of the water treatment tanks, raw water is supplied to the upper

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chamber of the water treatment tank causing the water of the lower chamber to be expelled, the separating wall moves until it reaches its lower position and raw water fills the upper chamber to the limit of its volume, the treatment of the raw water then being carried out and as well as the treated water and sludge separating, the timing of the steps of the raw water treatment is made to differ between the different water treatment tanks so that when raw water is supplied to the upper chamber of any of the water treatment tanks, the water for level adjustment expelled from the lower chamber is introduced into the lower chamber of a tank where the treatment of raw water has finished, causing the separating wall to move upwards, expelling the treated water from the upper chamber.

7. In a water treatment tank having an upper and lower chamber, a water treatment method comprising the steps of:

supplying raw water to the upper chamber of the tank to its maximum volume thereby expelling water from the lower chamber of the tank;

mixing coagulant with the raw water to conduct a stirred flocculation process;

precipitating and separating the raw water; and

introducing water into the lower chamber to thereby expel the treated raw water in the upper chamber.

8. A water treatment method according to Claim 7, wherein a level adjustment water storage tank is connected to a plurality of water treatment tanks so that water can

flow between said storage tank and the lower chambers of each of the water treatment tanks.

9. A water treatment apparatus, comprising:

a surrounding wall immersed in the water to be treated;

a raw water inlet and a treated water outlet fitted to an upper part of said surrounding wall;

an upper plated fitted to an upper part of the surrounding wall;

a flexible sheet fitted to a lower edge of the surrounding wall;

a bedplate attached to said flexible sheet;

a flotation adjusted bag fitted to the bedplate;

means for supplying and removing air for said flotation bag to thereby inflate and deflate said flotation bag

where said upper plate, surrounding wall, bedplate and flexible sheet form an enclosed

water processing chamber and where the bedplate can move upward vertically in the

water processing chamber by inflating said flotation adjustment bag to thereby expel

treated water from the upper chamber and where the bedplate can move downward

vertically in the water processing chamber by deflation of the flotation adjustment bag to

thereby cause the bedplate to fall under its own weight allowing introduction of raw water

to a water treating chamber.

FOOTNOTES

10. A water treatment apparatus according to Claim 9, wherein said surrounding wall is formed by use of a floatation bag filled with air.

11. A water treatment apparatus according to Claim 10, wherein a stirring device is fitted above said bedplate.

12. A water treatment apparatus according to Claim 11, wherein a treated water storage chamber having identical structure to said water processing chamber is connected to said water processing chamber through the treated water outlet to thereby store treated water that is expelled from the processing chamber.

13. A water treatment apparatus wherein a plurality of the water treatment apparatus according to Claim 12 are connected together.

14. A water treatment apparatus according to Claim 1, further comprising a floatation adjustment bag fitted to a lower part of the separating wall to thereby control the vertical movement of said separating wall.

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